20. The method of simulating an ablation of a cornea of an eye according to claim **19**, further comprising:

comparing said simulated ablation profile with said final ablation profile.

21. The method of simulating an ablation of a cornea of an eye according to claim **20**, further comprising:

determining a second energy profile if, based on said comparison of said simulated ablation profile with said final ablation profile, said simulated ablation profile does not match said final ablation profile to within a predetermined criteria.

22. The method of simulating an ablation of a cornea of an eye according to claim **21**, further comprising:

replacing said first energy profile with said second energy profile.

23. The method of simulating an ablation of a cornea of an eye according to claim **19**, wherein:

said simulated ablation profile is three dimensional.

24. The method of simulating an ablation of a cornea of an eye according to claim **19**, further comprising:

displaying said simulated ablation profile.

25. The method of simulating an ablation of a cornea of an eye according to claim **24**, wherein:

said simulated ablation profile is displayed in a three dimensional view.

26. A method of simulating an ablation of a cornea of an eye, comprising:

(a) determining a final ablation profile which represents a profile of an intended ablation of said cornea;

(b) determining a first energy profile based on said final ablation profile;

(c) irradiating a laser beam on an array of sensing elements in accordance with said first energy profile;

(d) constructing a simulated ablation profile based on, at least in part, a duration of irradiation and corresponding irradiated portion of said array of sensing elements;

(e) comparing said simulated ablation profile with said final ablation profile;

(f) determining a second energy profile to replace said first energy profile if, based on said comparison of said simulated ablation profile with said final ablation profile, said simulated ablation profile does not match said final ablation profile to a predetermined criteria; and

(g) repeating steps (a) through (f) until said simulated ablation profile matches said first final ablation profile within a predetermined criteria.

27. Apparatus for simulating an ablation of a cornea of an eye, comprising:

means for determining a first final ablation profile;

means for irradiating a laser beam on an array of sensing elements in accordance with said first final ablation profile; and

means for constructing a simulated ablation profile based on, at least in part, a duration of irradiation and corresponding irradiated portion of said array of sensing elements.

28. Apparatus for simulating an ablation of a cornea of an eye, comprising:

means for determining a final ablation profile which represents a profile of an intended ablation of said cornea;

means for determining a first energy profile based on said final ablation profile;

means for irradiating a laser beam on an array of sensing elements in accordance with said first energy profile; and

means for constructing a simulated ablation profile based on, at least in part, a duration of irradiation and corresponding irradiated portion of said array of sensing elements.

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